ABSTRACT OF THE DISCLOSURE

A method for equalizing channel quality differences in a WDM system
having N transmitters, N receivers and N channels wherein the following steps are
5   performed: separately measuring in each case a bit error rate of each individual one
of the N channels in each one of the N receivers, these being measured in each case
at different decider thresholds, deviating from the optimum value, in N first
decision circuits; determining the bit error rate at the optimum operating point by
extrapolating the measured bit error rates for each individual one of the N channels;
10   determining a Q value for each one of the N channels from the respective
associated extrapolated bit error rates; calibrating the N transmitters via a control
device by raising the levels of the channels having a high bit error rate and
lowering the levels of the channels having a low bit error rate at the ratio of the
respective Q value of the channel, the aggregate level of all N channels in the N
15   transmitters being kept constant; and repeating the steps until all N Q values of the
N channels in the N receivers are equal.